# The Rise and Fall of the EU Taxonomy: Lessons in the Implementation of Sustainability Accounting and Accountability

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**Abstract:** The initial purpose of the EU Taxonomy was to establish a framework that defines environmentally sustainable economic activities within the European Union (EU), designed to address the urgent need for a common language and criteria to identify and classify sustainable investments. Its offspring, the EU-CSRD and European Sustainability Reporting Standards (ESRS), would aim to provide clarity and transparency to investors, businesses, and policymakers regarding the environmental performance of economic activities. Lofty goals notwithstanding, the daunting task to catalogize all business activity in terms of its environmental and social footprint, has been branded as a failure. The regulatory capture by business groups and member state interests has led to a dilution of initial targets, that it no more satisfies the requirements on which the EU Taxonomy was originally based. The way forward is unclear and entails further time-wasting, or delegating pressing environmental needs to private standard setting bodies. Initiatives led by the ISSB through the IFRS foundation, SASB and the TCFD, to develop globally recognized sustainability reporting standards, provide for a viable and more effective, alternative regime.

**Keywords:** EU-Taxonomy, Accounting, ESG, Climate Finance, ISSB, Sustainability Reporting

**Aufstieg und Fall der EU-Taxonomie: Lehren bei der Umsetzung der Nachhaltigkeitsstandards und Rechenschaftspflichten**

**Zusammenfassung:** Das ursprüngliche Ziel der EU-Taxonomie war es, einen Rahmen zu schaffen, der ökologisch nachhaltige Wirtschaftsaktivitäten innerhalb der Europäischen Union (EU) definiert und dazu beiträgt, den dringenden Bedarf an einer gemeinsamen Sprache und Kriterien zur Identifizierung und Klassifizierung nachhaltiger Investitionen zu decken. Ihre Nachfolger, die EU-CSRD und die Europäischen Standards für Nachhaltigkeitsberichterstattung (ESRS), zielen darauf ab, Investoren, Unternehmen und politischen Entscheidungsträgern Klarheit und Transparenz hinsichtlich der Umweltleistung wirtschaftlicher Aktivitäten zu bieten. Trotz hoher Ziele ist es jedoch eine entmutigende Aufgabe, alle Geschäftsaktivitäten hinsichtlich ihres Umwelt- und Sozialfußabdrucks zu katalogisieren, was als Misserfolg eingestuft wurde. Die regulatorische Vereinnahmung durch Wirtschaftsgruppen und Interessen der Mitgliedstaaten hat zu einer Verwässerung der ursprünglichen Ziele geführt, sodass sie nicht mehr den Anforderungen entsprechen,

auf denen die EU-Taxonomie ursprünglich basierte. Der Weg nach vorn ist unklar und führt zu weiterem Zeitverlust oder zur Übertragung dringender Umweltanforderungen an private Standardsetzungsorganisationen. Initiativen, die von der ISSB über die IFRS-Stiftung, SASB und die TCFD geleitet werden, um global anerkannte Standards für Nachhaltigkeitsberichterstattung zu entwickeln, bieten ein praktikables und effektiveres alternatives Regime.

**Stichwörter**: EU-Taxonomie, Rechnungslegung, ESG, Klimafinanzierung, ISSB, Nachhaltigkeitsberichterstattung

*"Creating long-term value requires both a focus on financial and sustainability performance. This means we need tools for measuring sustainability performance just as we have for financial performance*." Klaus Schwab (IFRS, 2021a)

## 1. Introduction

It is now a (mostly) accepted fact that global warming poses a significant risk to our way of living. It is producing significant, and irreversible, changes to rainfall, wind patterns, and oceans throughout all parts of the globe (European Green Deal, 2021). Higher temperatures and more meteorologically intense events are causing large costs for the EU's economy, and impacting member states' (MS) ability to produce food (Council of the European Union, 2020). The EU's response has been an unwavering commitment to combat climate change and to implement regulation that tempers its effects, enhances readiness, and diverts resources to smooth the energy transition.

At the forefront of this strategic shift is the EU's effort to create a green "Taxonomy." This initiative, put forward as part of an action plan for financing sustainable growth in 2018, highlighted concrete policy goals and scientific targets for sustainable finance: to classify what is green and what is not green. The Taxonomy, which includes a classification system, and corresponding disclosure requirements for companies, such as the Corporate Sustainability Reporting Directive (CSRD), all embedded in a formal and legal system.[1] It quickly passed into legislatively binding requirements on EU-based companies, or companies with significant activities in the EU, starting 2024. The grand aim was to foster transparency and long-termism in financial markets, as well as the economy. As Louis Brandeis claimed "sunlight is the best disinfectant:" transparency and accountability are the best cure, and the environmental as well as the social impact, of all economic activity in the EU are to be made transparent (EU Taxonomy, 2022).

However, the European Commission is struggling with the process of designing and implementing the Taxonomy regulation, although the EU now has a complete classification system with an implementation date starting Jan 1, 2024. The process has been thus far branded as a failure, due to a number of reasons. First, it is a daunting task to classify all economic activity in terms of its environmental and social footprint. No regulatory approach worldwide has ever undertaken the mission to catalogize business activities to this extent. Second, and more importantly, the influence of a large number of interest

1 As of July 31, 2023, the EU Commission adopted the European Sustainability Reporting Standards after a swift 30-day feedback period, based on the CSRD (the Directive) which operationalized into applicable rules, the framework established in the EU Taxonomy. These require firm-level audited data on climate change, pollution, water and marine resources, biodiversity and ecosystems, resource use, workforce, workers in supply chain, affected communities, consumers, and business conduct.

groups addressed via interventions from governments of MS, or interventions from MS themselves, disrupted and interfered in the process of development. As a case in point, the five main oil and gas companies, with their lobby groups, have spent at least €251m in EU lobbying on climate regulation since 2010 (LaVille, 2019). It is not only companies that are diluting climate change fighting regulation, Sweden and nine other countries lobbied for bioenergy (Regeringskansliet, 2021), Finland threatened to block proposals on forest bioenergy (Pohjanpalo, 2021), while Austria and other MS sued the EU for the inclusion of nuclear as a green activity or to protect their agriculture industries.

At the heart of the multiyear-long conflict between companies and MS, with respect to the proposed EU Taxonomy, is the fact that not a single company or MS wants to be labeled as not being "green" or "sustainable." One of the main drivers of the Taxonomy was to divert resources and financing toward desirable projects. For example, green hydrogen is multiple times more expensive than natural gas, hence to make it economically viable, the EU has to actively support companies involved in green hydrogen, to the detriment of many industrial companies. This example, among many, indicates why every actor strived to lobby to be "green" in the Taxonomy. This would ensure the flow of subsidies and grants by the EU, and avoid penalties and stigmatization. The level of dilution and political horse trading in the final form of the EU Taxonomy, resulted in lawsuits filed by the expert commission working on the preparation of the Taxonomy. They claimed that their work does not satisfy the initial scientific requirements on which the project was based (Rankin, 2023). The EU started with the initial quest to provide a "EU Taxonomy is a science-based transparency tool for companies and investors" (EU Taxonomy, 2022), but ended up satisfying neither environmentalists, businesses, nor society, resulting in many considering it a failure (see WWF, 2022).

The EU has started discussions with private groups for the development of sustainability standards in parallel, such as the collaboration between the ISSB and IFRS foundation (KPMG, 2011). At this point, it is unclear what the final application of the Taxonomy will be, or how it will be implemented from 2024 onwards, or relate to other initiatives undertaken by private bodies in the EU.

The political "capture" of the EU Taxonomy by the MS and affected businesses, led to enough dilution of its initial premise, that has rendered it near unusable, and perhaps lower quality than efforts by private entities within the EU. Stigler's "capture" theory of economic regulation (1971), which has been widely examined for the last fifty years, argues that interest groups, and political participants, will compete within the system to shape laws and regulations in a manner that benefits them. There are many similar historical antecedents of political capture, as this has been validated in national discussions in standard setting with respect to accounting rules like Bushman and Landsman (2010). Chalmers (2014) examines 800 expert groups formed by the EU commission, and looks at the activities of 3,000 lobbying organizations, and concludes that EU decision making is plagued by capital providers with outsized influence (see also Thatcher, 2002). Similar evidence exists within country interest groups (Innes, 2014), or industries such as banking (Keller, 2018), or greenhouse gas regulation over the last 20 years in the EU (Patnaik, 2019).

The 8 years since the 2015 Paris agreement have shown little progress in improving the EU's trajectory toward net zero in 2050. Emissions are continuously on the rise. There seems to be no political solution so far, and none that seems to be appearing in the

horizon. The EU Taxonomy started with a lot of promise but ended up not achieving anywhere close to the goals that it set out to achieve. We propose a simple system, one that can be implemented quickly and effectively. Accounting for carbon emissions seems to be a simple benchmarking system that is acceptable by everyone. For any system to work, it has to be simple, understandable, and has to be verifiable. Carbon accounting seems to abstract away all that since the process and frameworks are (relatively) simple, the measurement is precise, and can be easily verified by using the GHG-protocol or a TCFD climate scenario analysis, for instance. More importantly, Carbon accounting can be easily audited, and penalties objectively enforced. We already have an "assurance" industry that can easily oversee net-zero targets.

To mitigate and limit the most severe and far-reaching impacts of climate change, a global reduction of greenhouse gas levels is essential, and the easiest and fastest way to stop the environmental calamity is to start by accounting for carbon emissions. Implementing carbon accounting can be a simple start, rather than a complex all-encompassing structure that will be chaotic to implement, hard to verify, and based on an unsound scientific system. This simple carbon emission verification mechanism can easily expand to cover all other ESG matters, in due time. Time to start simple, otherwise lobbying and horse-trading will delay yet again and again. The EU has already had multiple false starts.

This article proceeds as such. Section 2 discusses the rise of the EU Taxonomy as a response to the 2015 Paris agreement, and the EU's attempts to organize companies and shift resources into sustainable activities. Section 3 discusses the GRI, TCFD, SASB, and ISSB, and other private bodies that have engaged in the standard-setting space, and how such private bodies might end up shaping EU, and perhaps global, classifications into what is green and not green, and or not sustainable. Section 4 illustrates the capture of the EU Taxonomy by MS and lobby groups, which led to failed outcomes, and also discusses the role of private standard-setting bodies to fill the void. Section 5 examines progress in sustainable governmental strategies in other jurisdictions, that hold parallels with the EU, such as California, the UK, Chile, Switzerland, and Hong Kong. This section also discusses as to why there has been no unified approach to the measurement and disclosure of sustainability related information, and how the lack of enforcement has led the voluntary process to be useless. Section 6 concludes with lessons learned and steps ahead. These include whether private standard setting bodies offer higher quality alternatives to creating a viable system, as compared to the EU Taxonomy. We discuss the recent collaboration between the IFRS Foundation and the ISSB, and finally we offer our own thoughts as to what is the most effective and low-cost way forward.

## 2. Climate Regulation in the EU

### 2.1. The Rise of the EU Taxonomy as a Response to the Paris Agreement

The Paris Agreement (UNFCCC 2015) was signed in 2015 to strengthen the global response to the threat of climate change. A total of 189 out of 196 signatories have ratified the Paris Agreement as of today. The EU Taxonomy, the inception, and first iteration of which, can be traced back to 2018, is a direct response to climate change risks which are widely recognized as a risk to the stability of the financial system and the EU economy. The ECA (2021, p. 6) gives context on the remaining challenge: "The challenge is how to organize and finance a socially just and environmentally sustainable transition towards a

climate neutral and resilient economy. It is widely agreed that this transition will require significant public and private investment. This will require both raising finance for the investments needed to achieve a carbon neutral economy and strengthening financial stability by incorporating environmental, social, and governance (ESG) considerations into business and investment decisions."

After a brief absence last year, US President Joe Biden decreed the US's return to the agreement, sending a clear signal about its future climate policy. President Biden even apologized for the actions of his predecessor in Glasgow (Tankersley et al., 2021). One of the goals of the agreement is to align financial resource flows "with a pathway towards low greenhouse gas emissions and climate resilience"(UNFCCC 2015, Art. 2c). Following up on this commitment, legislators and governments are reforming guidance as well as introducing rules to fulfill their policy goals and ensure the alignment to the Paris Agreement, especially the National Determined Contributions (NDCs), to limit the temperature increase well below under 2 degrees compared to pre-industrial levels. In contrast to the reduction pathways from previous agreements, like the Kyoto Protocol that settled on a target towards 2 degrees, the Paris Agreement adopts an approach that requires signatories to formulate their own contributions to reduce emissions. Although the targets are not binding, the signatory states must deposit measures that contribute to the implementation of the targets (UNFCCC Art. 4.2).

According to the ambition-raising mechanism agreed in Paris in 2015, countries are to increase their climate targets every five years to move closer to the common goal of limiting global warming to 1.5 degrees as far as possible (Art. 4.3.). They must disclose their implementation and their progress, to an international assessment (Art. 13). There is broad consensus that the transition to a carbon-neutral economy will require significant public and private investments (see, e.g., MGI 2020; COM/2018/97 final). Contributions by the private sector towards fulfilling these goals are becoming a major topic for regulators, especially in Europe, also fostered through activist movements suing companies to be in compliance with climate goals. This recently resulted in remarkable court rulings, basically ordering private companies to comply with the goals of the Paris Agreement: the Hague District Court has ordered Royal Dutch Shell (RDS) to reduce the CO2 emissions of the Shell group by a net of 45 % in 2030 (McFarlane, 2021).

It is estimated that the European Union alone will need to invest up to 1tn EUR annually with an investment deficit around EUR 300bn. In 2018, the Commission presented an Action Plan on Financing Sustainable Growth (COM/2018/97 final), which included measures to redirect private finance to sustainable investments, addressing financial risks arising from climate change, and promoting sustainable corporate governance in the private sector. The EU Taxonomy was envisioned with the purpose of "reorientating" money toward sustainable investments in terms of ESG (COM/2019/640 p. 22).

At the same time, the Commission and the European Investment Bank continued their efforts to provide public funding support for sustainable investment, particularly in the context of climate change mitigation (ECB, 2021). The ECB released a report just one week after the Glasgow Climate Conference, revealing the current results of its climate stress test (ECB Report on the supervisory review, 2021). The results caused concern, since not a single reporting institution of the 112 biggest banks in the European Union met the ECB prerequisites: "Over half of institutions have no concrete actions planned

to embed climate and environmental risks in their business strategy" (ECB Report on the supervisory review p. 3.).

At its 2020 climate summit, the European Union agreed on a much more ambitious climate target for 2030: Greenhouse gas emissions are to be reduced by up to 55 percent, compared with a mere 40 percent previously (SWD/2020/177 final). Some EU members hoped for stronger support for the largely greenhouse gas-free nuclear industry, but this was not considered in the final declaration at the time (Thomas & Overstraeten, 2021). Therefore, the EU came up with the important initiative to put forward an action plan for sustainable growth by the European Commission in 2018, that highlighted concrete policy goals and scientific targets for sustainable finance. This included the disclosure requirements for companies, all embedded into a formal Taxonomy. One aim is the fostering of transparency and long-termism in financial markets as well as the economy. Externalized costs and the influence of economic activities on social as well as environmental factors are to be made transparent. We schematically represent the EU action plan on sustainable growth in Figure 1.

**Figure 1: Author Illustration Following the EU Action Plan On Financing Sustainable Growth**


The aim of the EU Taxonomy is strengthening sustainability disclosure and stricter rules for financial accounting, as transparency and disclosure are missing. As discussed earlier, reports of the CSR-activities by companies are considered for not connecting sustainability issues to financial performance of companies. They have often been linked to PR departments with the main task to boost reputation of a company (SASB, 2021; Oh, 2021). The concern of delivering non-measurable information and often using boilerplate language, referred to as "greenwashing", also manifested in several guidance forms from authorities or even strict regulations, e.g. on European level. This led to a reform of the Non-Financial Reporting Directive (NFRD) that became the Corporate Sustainability

Reporting Directive (CSRD). It was explicitly designed to support and integrate initiatives for global sustainability reporting standards. The European Commission's proposal for the CSRD extends the scope of NFRD's requirements to include all large companies, whether they are listed or not, without the previous 500 employee threshold. This change broadens the scope of entities from 11,600 to 49,000 and means that all large companies are publicly accountable for their impact on people and the environment (COM/2021/189 final, p. 10).

The EU proposal also introduces more detailed reporting requirements and a requirement to report according to mandatory EU sustainability reporting standards (ESRS). That means firms would apply the standards, using the commission's 4-year phase-in requirements (based on company size and location), to reports published starting in 2024, covering the 2023 financial year (Halper et al., 2021; COM/2021/189 final). Another objective is the substantiated aim to "reorient capital flows towards sustainable investment" with the linked action of establishing a classification system for sustainable activities and, action number 2, creating standards as well as labels for green financial products. Action number 5 focuses on transparency and information for investors. In the year 2018, EU's High Level Expert Group (HLEG) on sustainable finance published their final report, including a roadmap for an EU classification system used to define sustainable activities, the EU Taxonomy directive. These standards and labels for green finance are meant to provide reliable information to investors and other stakeholders.

A major benefit of having a Taxonomy is that it ensures transparency and a clear labeling of green activities in order to separate them as well as to integrate external costs in the valuation of investments and activities. This is by no means solely about companies and their activities but about reorientating financial flows into sustainable investments. In order to enable the commission to decide whether activities are green or not, clear, measurable, and decision-useful KPIs have to be in place. The Taxonomy also extends to the banking system, so that funds can be used in a targeted manner. This is also reflected in the new rules for stress tests by the ECB, which in themselves exert particular pressure and also have a signal effect on financial market players (ECB, 2021). The stricter rules for banks are also leading to companies taking a closer look at sustainability or resulting in management discussions about standardizing sustainability reporting, as banks in particular are asking questions when it comes to financing. In addition, the EU Taxonomy aims to ensure the environmental and social costs of corporate activity through the standardization and disclosure of sustainability information. The reporting requirements associated with the EU Taxonomy were expected to significantly increase the informative value of non-financial reporting by establishing a link between financial and non-financial topics. Furthermore, they required early and intensive consideration by reporting companies. The plan was that first-time reporting obligations would take effect relatively early, namely from January 1, 2022, following the adoption of the Taxonomy Regulation in June 2020.

The Taxonomy has a collateral effect on other countries also, including the U.S. (see Eaglesham and Hirtenstein, 2021). The new European Sustainable Finance Disclosure Regulation requires financial market participants to comply with a number of ESG requirements. It applies to all funds, even if they do not sell themselves as sustainable. The disclosures affect hedge funds from abroad, among them many U.S. firms domiciled in Ireland because of tax incentives. One shortcoming of the Taxonomy is that the rules are

ahead of reality. Many funds would have been required to disclose information about companies, including data that the companies themselves may not disclose. Eaglesham and Hirtenstein (2021) discuss the example of Inspire Brands, the owner of Dunkin' Brands Group, one of the largest food chains in the world. Inspire Brands does not yet disclose ESG metrics, but new EU rules mean that a U.S. fund based in Ireland that holds a stake in Inspire may have to report on these issues, indirectly forcing Inspire to identify ESG related issues and report them.

By the end of 2019, it had become clear that the EU – instead of using existing climate frameworks for businesses or public investments, like TCFD, SASB, CDP, CDSB etc. – wanted to develop its own set of rules. This probably was due to Regulator's fear of losing control over their environment, or because existing frameworks were unsuitable because of their definition of materiality or their stakeholder definition (both are interconnected), or because of pressure from MS who wanted to protect their vital industries, or a combination of all (Hoorn, 2021). These alternate frameworks / standards, which predate the EU-Taxonomy and are (generally) more developed, we further discuss below.

## 3. GRI, TCFD, SASB, ISSB and the Sustainability Standards Zoo

### 3.1. Private Sector Standard Setting

The most recent years have witnessed a blossoming of ESG related entities, whether these are rating agencies, framework providers, financiers, assurance services, or investment funds. Some anecdotal evidence indicates that there are more than 600 rating agencies that opine on ESG activities, and more than 500 firms that provide assurance services, starting with the big four accounting firms (E&Y, D&T, PWC, KPMG). When it comes to frameworks, there are a myriad of organizations focusing on different target groups (investors, stakeholders, regulators, etc.). Nonetheless, no "common language" has been found mainly because of the different demands by the heterogeneous target groups.

Sustainability reporting is a powerful catalyst, as it cannot be applied without transforming the strategic goal of the company. By bringing transparency through clear definitions about materiality, sustainability reporting can give a clear picture of the impacts (positive and negative) of an organization in terms of economic, environmental, and societal effects. Data providers can use the revealed information for ratings and research as well as conduct indices (Douglas et al., 2017). Non-governmental organizations use this data, too. When focusing on the area of climate disclosure, there is an impressive range of tools, for example, when companies publish their conducted climate scenario analysis. Predefined metrics and the methodology of frameworks cannot be implemented into a company's strategy without implementing KPIs and strategic goals (SASB, 2021). Implementing, measuring, and discussing these will already be powerful to transform companies (e.g. GRI, 2021).

Two of the most used standards for publicly listed companies are the Global Reporting Initiative (GRI) and the Sustainability Accounting Standard Board (SASB). These standards can already be implemented in SEC filings. SASB is currently being pushed by the demands of universal investors (Sorkin, 2018; Jessop and Jones, 2021). Most prominent among those is the 2020 letter from BlackRock's chief executive Larry Fink, which was addressed to the CEOs of the companies BlackRock is invested in (Larry Fink's Annual 2020 Letter to CEOs): "This year, we are asking the companies that we invest in on behalf

of our clients to: (1) publish a disclosure in line with industry specific SASB guidelines by year-end, if you have not already done so, or disclose a similar set of data in a way that is relevant to your particular business; and (2) disclose climate related risks in line with the TCFD's recommendations, if you have not already done so. This should include your plan for operating under a scenario where the Paris Agreement's goal of limiting global warming to less than two degrees is fully realized, as expressed by the TCFD guidelines."

The Task Force on Climate-Related Financial Disclosures (TCFD) was created by the Financial Stability Board in 2015. The TCFD provides companies with a framework for reporting environmental and climate information with the same rigor as financial information (Halper et al., 2021). This, in turn, helps them provide investors with decision useful environmental and climate information through the general corporate report. The TCFD recommendations can be integrated and used with other frameworks and standards referring to TCFD as best practice (SASB and CDSB, 2019).

The GRI Standards focus on the economic, environmental, and social impacts of the activities of a company – and hence its contributions towards sustainable development. The GRI Standards are intended for use by all stakeholders, including customers, employees, civil society, governments, and investors, but they are industry agnostic. They also, in contrast to SASB, provide no predefined industry-specific definition of materiality until the reform of the standards this year (GRI, 2021). Meanwhile, the industry-specific SASB Standards identify the sustainability-related risks and opportunities most likely to affect a company's financial condition. They don't necessarily have to be included financial filings of a company but can be included in mandatory statements as well as in separate SASB disclosures (SASB and CDSB, 2019).

The SASB Standards focus on the sustainability factors most likely to have a financially material impact in each of the 77 industries. These standards are updated on an ongoing basis, using a project-based model. They are utilized by companies based in 53 countries and supported by investors based in 23 nations (Cohen, 2020). Under this model, SASB can effectively address emerging issues by flexibly addressing general issues, regulatory changes, and other trends affecting multiple sectors, while being able to make targeted updates to individual standards. SASB applies its rigorous process, which includes evidence-based research, broad and balanced stakeholder participation, public transparency, independent oversight and direction from the Standards Board. Following this process ensures that SASB strikes an appropriate balance between the timeliness of updates and the need to maintain high-quality standards (SASB, 2017, p. 13).

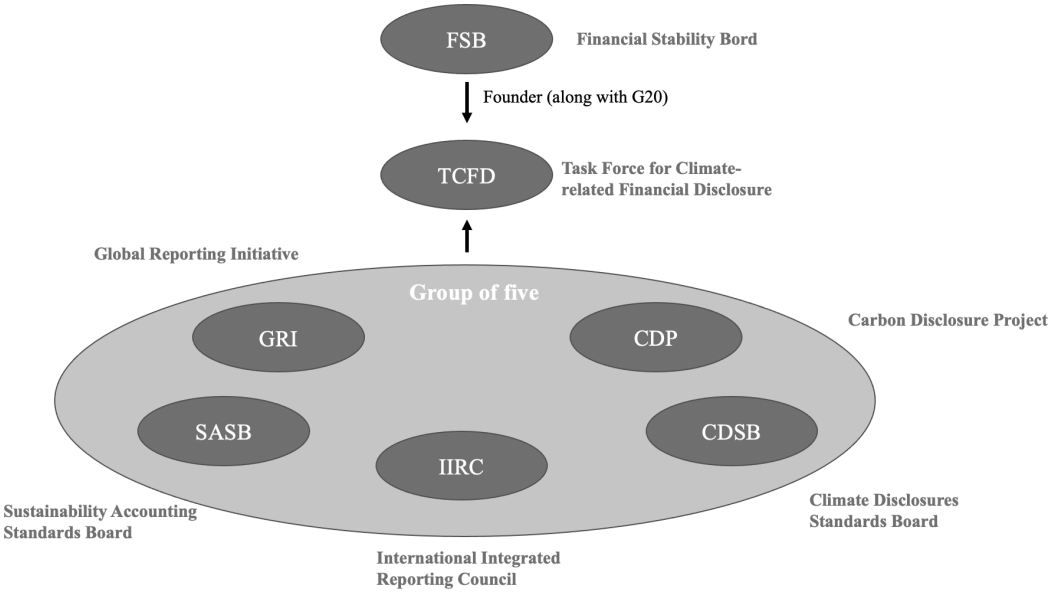
The GRI Standards play an extremely important role, they are the most widely used standards worldwide. Around 70 % of all companies use them (GRI, 2021). In addition to standardizing reporting, they focus on economic, environmental, and social impacts of a business model. This stands in contrast, for example, to the main target group of the SASB Standards – investors. The two sets of standards tend to complement each other due to their different target audiences, so they are not mutually dependent or substitutable.

The final development of note is that the IFRS foundation, mandated by the EU to promulgate financial accounting directives that are followed by EU domiciled public companies, has now extended its reach into ESG rule-making. The process has taken a few years and through the merger of a number of already existing entities. The International Integrated Reporting Framework, by the International Integrated Reporting Council (IIRC), which focuses mainly on providers of financial capital, merged with the SASB

and the creation of the Value Foundation. Next, these have been integrated into the ISSB (IMP, 2020a; IFRS, 2021a). By combining the resources of the IIRC and SASB through the completed merger, the disclosure base and expertise has been increased. The next step will be the formulation of a "comprehensive" set of ESG standards in collaboration with the ISSB, under the IFRS umbrella.

As of now, the collaboration between the non-state / non-government standard setters, the so-called "Group of five", publicized a first prototype for a climate-related disclosures standard (climate prototype) (IFRS, 2021b). It follows a statement of intent from September 2020 (IMP, 2020a) by the CDP, Climate Disclosure Standards Board (CDSB), Global Reporting Initiative (GRI), International Integrated Reporting Council (IIRC) and Sustainability Accounting Standards Board (SASB) – the aforementioned so-called "Group of five" – to work together toward a globally accepted comprehensive corporate reporting system. We schematically present the development of a climate reporting system in Figure 2.

**Figure 2: Author Elaboration on the Process Behind the Development of a Climate-Related Reporting Standard**




The "Group of five" have reiterated support for the consultation proposed by the trustees of the International Financial Reporting Standards Foundation (IFRS) and the World Economic Forum (WEF) as well as the International Accounting Standards Board (IASB), which suggested the implementation of a globally focused Sustainability Standards Board (ISSB). Earlier work by the network includes a shared vision for comprehensive corporate reporting and the consolidation of the investor-focused disclosure initiatives into the IFRS Foundation's new International Sustainability Standards Board (ISSB) (IFRS, 2021b). The platform, whose Steering Committee includes multilaterals that will also advise the ISSB, provides a complementary forum to support practitioners to manage and improve their sustainability impacts (IFRS, 2021a). Whether this leads to widespread adoption by the

EU, as it was intended to be, is further discussed in sections 5 and 6. This itself depends on the success of the ESRSs that will be binding starting 2024, chances are increased by the fact that the EU Taxonomy has been captured by lobby groups and private organizations, as we discuss below.

## 4. Capture of the EU Taxonomy, and Private Standard Setting Initiatives

### 4.1. Capture of the EU Taxonomy

The progress of the EU Taxonomy over the past 5 years can be best explained by "capture," where the regulatory process has been severely altered by the MS and affected industries, leading to substantial dilution of its initial premise, that has rendered it near unusable, and lower quality than efforts by private entities within the EU. This "capture" theory of economic regulation, which has been widely examined for the last half a century, argues that interest groups, and political participants, will compete within the system to shape laws and regulations in a manner that benefits them (Stigler, 1971).

The European Commission presented the European Green Deal in December 2019 as part of its climate policy positioning in the wake of the Paris Agreement (COM/2019/640). With the Green Deal, the Commission proclaimed the goal of reducing net emissions of greenhouse gases in the European Union to become net-zero by 2050 and thus climate neutral. To help align and finance the Green Deal, financial flows are to be reorientated to environmentally sustainable activities. The action plan aimed to close the gap for necessary investments needed to transition the economy and infrastructure. But nearly all concrete actions have been either delayed or suppressed due to heavy lobbying from interest groups. One of many examples is the intensive lobbying of the gas sector, trying to label gas as a green activity per se. According to the NGO Reclaim Finance an extensive approach has been underway to smooth regulation for the sector. Over 300 meetings with EU officials have been reported. In a 2020 report of the NGO Influence Map identified 318 companies and associations lobbying against certain proposals, like the 100g CO2e/kWh emission limit put out by the EU's technical expert group (TEG). This would technically ban plants powered by natural gas only and also inefficient co-generation technology. The opposition to these regulations has been massive, as exemplified by a letter from the 57 major oil and gas producers to the Commission.

Another example of capture is revealed through the discrepancy of science-based thresholds on biomass, especially forest biomass. A report by EASAC sees the increasing demand for biomass energy as critical as the "payback time" between the harvesting of trees and their renaturation takes many decades. If these rest periods are not complied with, there are studies that show a higher total emission of CO2 from biomass than fossil fuels (GHG savings would occur over a period of 40–100 years). The recommendations of the TEG were also in contrast with the forest policies of some countries, such as the concentration of monocultures of eucalyptus trees in Portugal, which led to a devastating disaster in 2017. Hence, many interventions at the member state-level, like the "joint non-paper" from eastern European MS led to weaker thresholds and criteria. The departure from the basic orientation toward scientific knowledge also led to considerable resistance. Thus, more than 130 organizations have appealed to the Commission to return to a science-based Taxonomy.

Although the EU Taxonomy aimed to fulfill the Paris goals, and put action plans to align capital flows with sustainability, especially climate targets, the completion of this Taxonomy, though, has been greatly delayed. It is interesting to look at the reasons for this: key features remain open and unresolved among MS. Among them is a fundamental disagreement on the rules to avoid greenwashing. In simple summary, the dissent has never been resolved because different interests have been diametrically contested and remain irreconcilably opposed. This ultimately led to the development of separate rules on disclosure and even Taxonomy systems, as illustrated by the annual report of the International Platform for Sustainable Finance (IPSF 2020). The EU's claim to undertake a comprehensive cataloging of all economic activities is an unprecedented task that will take time and, along with the diverse interests of the MS, may be one of the largest legislative undertakings in European legal history. Not only because of the discussion about including nuclear energy, or natural gas, or other controversial items in the list of green investments, but because every single EU MS feels the need to protect their localities, while at the same time are being suspicious that their economic interests have been violated. All MS share the grievances of Finland, to use as an example: they are no longer committed to the plan due to the non-inclusion of its strong forestry sector (Pohjanpalo, 2021).

MS have been openly standing up for their individual interests. Germany has revealed the obvious dichotomy between the commitment to a comprehensive redirection of capital flows and the practice of actual subsidies: The German government spends around EUR 65bn per year on environmentally harmful subsidies, including fossil fuels. This is the result of a study by the Federal Environment Agency (Umweltbundesamt), as detailed by Stallmann (2021). In a recent data analysis, the IEA documented the detrimental impact of these fossil fuel subsidies to the net-zero target of 2050 (IEA, 2021).

When it comes to the discussion of whether nuclear energy can, in principle, be included in a future sustainable energy mix with substantial CO2 reductions without violating the DNSH criteria anchored in the EU Taxonomy, this issue has been raging for several years. The subject matter is highly controversial not only in the political arena: A comprehensive meta-study by Stagl (2020), conducted on behalf of the Austrian Federal Government, regarding the decision-making at the European level, concludes that the subject is discussed in different shades in specialized literature but that the argument predominantly leans in the direction of a phase-out of nuclear energy. The reason is that renewable energy sources sometimes have even lower GHG emissions as well as lower economic and social costs, which offers a good performance in terms of climate protection with less negative interactions and consequences. In general, it is argued that the per se classification of nuclear power as green investment not only blocks the expansion path of renewables but also does not include potential environmental risks.

In sum, the discussion above indicates that although EU MS agree in principle regarding the attainment of the Paris climate targets, they strongly disagree on the pathway. The different political influences and inconsistent decision making system of the EU, coupled with a political system that is oriented toward political majorities, and less towards science-based targets and sustainability goals, has come in full force. The EU is not able to muster critical legislation of this immense size and importance.

### 4.2. The Fall of the EU Taxonomy

Although the EU's Taxonomy was widely regarded as a landmark initiative aimed at promoting sustainability and combatting climate change, i.e., EU's prime mechanism to meet global warming targets, concerns about the role of lobbyists in influencing the legislative process, and bickering among MS, ended up diluting the science-based approach of the Taxonomy. Especially the inclusion of natural gas as a "transition" energy source despite severe concerns about environmental impacts (i.e., the so called "gazwashed" Taxonomy). A report by EURACTIV highlights how the automobile industry pushed for looser criteria for electric vehicles to be considered as sustainable, leading to accusations of "greenwashing" and undermining the Taxonomy's credibility.

The EU was expected to prioritize the integrity of sustainability standards and ensure that they are not diluted by external influences, to ensure that sustainability reporting remains reliable and credible for driving positive change towards a more sustainable future. Without the EU, what was left was for private bodies to promulgate standards, which the EU was unwilling to delegate to. The Taxonomy ended up pleasing neither MS, nor lobby groups, nor environmentalists. Technical expert groups took action against the EU for changes in the Taxonomy. For instance, a group of scientists and environmental NGOs filed a lawsuit against the European Commission, challenging the inclusion of gas and nuclear power in the Taxonomy, citing concerns about the lack of scientific rigor in the decision-making process. Also, Austria sued the EU for the inclusion of nuclear as a green activity per se. Even an alternative Taxonomy framework by NGOs and Scientists concurrently developed. At this point, it was obvious that the Taxonomy had been diluted enough that in the eyes of many it was no more able to solve, and overcome hurdles for, the Paris Climate Agreement targets. Despite the widespread criticism, the EU decided not to abandon it. Given that this has been a multi-year process and a large investment in time, resources, and public promises, the EU did not admit to failure. Although, simultaneously it has tacitly started discussions with private groups for the development of sustainability standards in parallel, such as the collaboration between the ISSB and IFRS foundation.

The EU started with the initial quest to provide a "EU Taxonomy is a science-based transparency tool for companies and investors" (EU Taxonomy, 2022), but ended up satisfying neither environmentalists nor businesses and society, and is now considered by many to be a failure (see WWF, 2022). At this point, it is unclear what the final shape of the Taxonomy will be, or how it will be implemented in 2024, or how it will relate to other initiatives undertaken by private bodies in the EU.

Companies now preparing to fulfill the disclosure regulation based on the EU-Taxonomy, the CSRD, which will also affect non-European businesses, as an organization has to apply the reporting directives when they market their products in European markets. These companies are now challenged to manage the request and information needs of several stakeholders and apply several Standards and Frameworks for their Sustainability reporting. Through this, it might become obvious that the application of the standards by non-state standard setters are not only more rigorous and detailed, but that they allow more transparency for financial market participants, ESG-data users and of course legislators.

The political "capture" of the EU Taxonomy by the MS and affected businesses, has many historical antecedents, both in the EU and outside. This has been validated in

national discourses in standard setting with respect to accounting rules (Bushman and Landsman, 2010), while Chalmers (2014) examines 800 expert groups formed by the EU commission, and looks at the activities of 3,000 lobbying organizations, to conclude that EU decision making is plagued by capital providers with outsized influence (see also Thatcher, 2002). Similar evidence exists for within country interest groups (Innes, 2014), or industries such as banking (Keller, 2018), or greenhouse gas regulation over the last 20 years in the EU (Patnaik, 2019).

## 5. With Major Criticism of the EU Taxonomy, What is Next?

### 5.1. Mandatory ESG Standards: The Non-EU Evidence

The failure of the EU Taxonomy notwithstanding, a number of countries, and states within countries, and mandate holding private entities (e.g. public exchanges), demand mandatory reporting and have imposed guidelines for ESG disclosure (Bizoumi et al., 2019). Some have adopted standards already set by non-governmental organizations such as the TCFD, which have achieved widespread popularity in the field of climate finance.

The UK Financial Conduct Authority (FCA) announced at the end of 2020 that companies with a premium listing in the UK will be required to prepare their corporate reporting in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). This is to be anchored in the Listing Rules (FCA 2020) and will be extended to larger companies in the future (Clarkin et al., 2021).

The Federal Council of Switzerland recommends that financial market players use comparable and impact-measuring climate disclosure based on the recommendations by the TCFD to ensure transparency in all financial products and their own portfolios. It also encourages the financial sector to join international net-zero alliances and is working towards industry agreements (Neghaiwi, 2021).

In December 2021, an inter-agency steering group established by the Hong Kong Monetary Authority (HKMA) and the Securities and Futures Commission (SFC) announced plans to align listed companies' climate-related disclosures with TCFD recommendations by 2025. In April 2021, the Stock Exchange (HKEx) published a consultation paper (HKEX 2021) on tightening the ESG-related requirements of its corporate governance rules. Among other things, the paper proposes that HKEx-listed issuers must eliminate lopsided boards within three years and disclose targets and timelines for achieving gender diversity on boards and in the workforce. The clear investor focus of these standards constitutes a further advantage for the due diligence of legislators and public controllers.

Other entities have followed the lead of the SASB. For example, Chile's Financial Market Commission (Comisión para el Mercado Financiero) (CMF), recently announced to integrate SASB Standards into their securities laws (General Rule No. 461). It became the first country in the world to adapt SASB Standards into its regulatory frameworks and the accompanying statement by the authorities states: "This is due to the growing relevance that the disclosure of this type of information has acquired both locally and internationally. ESG information allows investors to evaluate investment alternatives in which their interests will be better protected, as well as identify companies able to better identify, quantify and manage their risks" (CMF Chile, 2021).

As with much of the paradigm shifts in free market capitalism, the driver of the world economy, U.S. regulations often set the tone in what lies ahead. There has been a notable

shift in U.S. climate related regulation under President Biden ((Eaglesham and Hirtenstein, 2021). Consequently, the Securities and Exchange Commission, which under the Trump administration still ruled out any steering effect on sustainability, has taken a new course. Under the leadership of MIT professor Gary Gensler, the SEC planed to improve climate risk disclosure requirements. The commission intended to promulgate new guidelines prior to the end of the president's first term in office, with the goal of requiring disclosure of registrants' climate-related risks. Chairman Gensler originally indicated upcoming changes in his initial remarks that the SEC's approach will be guided by – but different from – existing international standards, such as TCFD-published standards (Gensler, 2021). These changes were accomplished by the so-called SEC's climate proposal (SEC 2022). This document marks a significant stride towards enhanced transparency and standardization in ESG reporting, addressing the burgeoning investor demand for clear, reliable information on the integration of ESG factors into investment strategies. The proposal's alignment with the TCFD recommendations and the Greenhouse Gas Protocol signifies a concerted effort to integrate globally recognized frameworks and terminologies into the U.S. regulatory milieu (Santoro et al., 2022). This change in strategy followed pressure from economically significant regions of U.S. that are unilaterally pursuing climate strategies. California already has a comprehensive climate adaptation strategy and nearly all subordinate agencies and local institutions have a vision of realizing climate risks, such as the devastating wildfires of recent years. In 2019 Gov. Newsom signed a directive that his Finance Department collaborate with public pension funds (i.e. CalSTRS and CalPERS) to develop a "Climate Investment Framework" (Seiger et al., 2021): "In 2016, CalSTRS conducted a climate risk assessment of its portfolio, and in 2017, the fund excluded from its portfolio global companies that derive 50 percent or more of their revenue from the sale of thermal coal. In 2019, CalPERS and CalSTRS published reports aligned with Task Force on Climate-Related Financial Disclosures (TCFD) guidance in response to enactment of state Senate Bill 964."

### 5.2. Shortcomings of Current Frameworks: the need for consistent disclosures and enforcement

Despite the fact that a number of governments have voluntarily adopted climate mitigation strategies, using the TCFD, ISSB, or their own frameworks, they have major shortcomings. These approaches although commendable, still face the same issues that faced the failed EU Taxonomy: inconsistency in application, the lack of formal and consistent standards across regions, and neither auditing nor constant enforcement of violations. This leads to poor decision making, opacity, and inefficient allocation of resources.

There are numerous examples that illustrate the low informational value of sustainability reporting and guidance from authorities. The academic literature that is critical of current advances is plentiful (e.g., Rajgopal (2021a); Rajgopal (2021b); Berrutti (2021)). In addition to the discrepancy over a common understanding of materiality, the binding nature and accuracy of metrics to be implemented, differ across existing standards. As a rule of thumb, the broader the target audience, the broader the concept and definition of materiality (e.g. differences between GRI and SASB). Berrutti (2021) criticizes the lack of reliable and comparable data in required disclosures. This also applies to legislators and supervising bodies. Boffo and Patalano (2020, p. 62) argue that "Notwithstanding substantial efforts to improve ESG disclosure frameworks in recent years, the reporting

of ESG factors still suffers from considerable shortcomings with respect to consistency, comparability and quality that undermine its usefulness to investors."

In addition, there are large variations, and strategic omissions, under existing "comply or explain" regimes, which are common to the major standards and frameworks today. If the objective of the EU is to efficiently direct capital flows, as it was with the failed Taxonomy, then it is imperative to have comparability and decision relevant data and metrics. As Boffo and Patalano (2020, p. 62) note: "While there are valid reasons for different reporting frameworks depending on preferences of investors and the evolution of data availability, greater consistency, comparability and quality could be achieved by greater attention to levels of core metrics that apply to all issuers, and tiers of metrics within sectors and industries." If anything, having one single set of standards, used globally, even if sub-optimal and not universally agreed upon, could present pareto-optimal solutions over the standard setting zoo that governs the status quo of today.

This said, the promulgation and enforcement of ESG standards cannot succeed without the strong hand of governmental regulators. If the EU makes the TCFD or SASB or other standards mandatory, the final question of enforcement and control remains outstanding. This is undoubtedly true for all current standards and for the SEC regime as well. Here, the future "ESG auditors" will play a key role. They will play an important role in eliminating information asymmetry, and taking on a more systemic role. We note that the regulation of ESG data providers, and assurance services firms, is now also the subject of regulatory efforts (see ESMA, 2021).

## 6. Conclusion: Lessons Learned and Steps Ahead

### 6.1. Could other frameworks solve the EU Taxonomy's Failures?

The EU Taxonomy failed mainly because MS themselves could not agree regarding the scope and composition of such standards. From a game theoretic sense, the lack of cooperation has rendered all MS worse off. An advantage of "adopting" already made standards is that it eliminates the process of internal horse trading; moreover, each MS would be one state ahead in satisfying its voters ESG and especially environmental needs. For example, the EU could adopt a ready prototype, as is, and make it mandatory to integrate disclosures into a regulated reporting process. The focus is on "as-is" since any modifications to an already existing system leads to lengthy delays, and possible failure, of adoption.

This would have many advantages: Additional processes would be eliminated, as timing remains a crucial factor in the fight against climate change, it could solve many flaws in the EU rule making process. Listed companies would not only be faced with legal requirements, they would in addition, have met needs of investors, data providers, and financial institutions to a higher degree than just being in voluntary compliance. If a framework becomes legally binding, both private and public companies will be forced to integrate sustainability information regarding climate into their regular reporting. The EU would be a global leader in having a single set of unified standards.

The adoption of already existing frameworks is no panacea nevertheless. SASB was tailor-made for the needs of investors and has been primarily developed as a US standard that fits into the financial reporting of the SEC, and their cultural norms. It is heavy on investor needs but weaker on social and governance dimensions. Companies have different

options to report according to the SASB. They can provide standalone reports in the form of overviews or can directly integrate information into the 10-K. On the good side, the definition of materiality is quite differentiated and binding for different sectors in the form of a detailed materiality map. The process is transparent and is matched against science-based targets. As a shortcoming however, materiality is decided primarily by materiality in relation to investment risk, i.e., whether there are relevant risks for an industry that have a negative impact on financial performance in the event of materialization.

Ultimately, materiality thresholds are not set against societal needs, but are focused on investment risks. Therefore, SASB standards are unsuitable for climate change mitigation. Perhaps they serve investor interests well, but certainly not the climate and social appetite of EU regulators (Eccles & Mirchandani, 2022). Nevertheless, the application of SASB standards provides a step ahead for the EU, as it gives a science based, and objective picture, for stakeholders. Besides, standardized information is useful for EU regulators to create an industry-specific rating and as a basis for deciding on funding grants and loans from public or semi-public banks.

The other major frameworks, like the ISSB, GRI, and TCFD have their own shortcomings also. For the time being, the ISSB is a voluntary standard setter with no enforcement capabilities, despite its cooperation with IFRS and the support of the WEF. Ultimately, it can only be given strength by the regulators who oversee the markets they serve. The EU has been considering this as a possibility, but the progress has been slow.

The TCFD is strong on climate related benchmarks, as the intention by the FSB focuses solely on disclosing clear, comparable and consistent information about the risks related to climate. Hence, it falls short on societal dimensions. The GRI has played a pivotal role in advancing sustainability reporting, with its comprehensive framework being utilized by thousands of companies worldwide, leading to improved transparency and accountability. However, the GRI has updated its standard recently and became industry-specific, they also increased their threshold on mandatory disclosure. Still the GRI demands many resources as well as complex guideline on stakeholder communication. This lack of consistency may make it difficult for the GRI to become the globally recognized standard, as it may not be perceived as providing a consistent and uniform framework for sustainability reporting across different organizations and industries (Cardoni et al., 2019). The SASB has demonstrated real impact in driving change. For example, SASB has developed industry-specific standards that are widely adopted by companies globally, leading to more consistent and comparable sustainability reporting. However, it is more investor focused and less fitting to the EU's societal initiative.

There will be heavy opposition to the Taxonomy, as applied through the promulgated ESRSs. After their implementation in 2024 we expect to see a chaotic first few years. It will be left to the courts, and their interpretation of ESRSs, versus their application by individual companies. The standards were adopted without due process, and without the involvement of MS, as required by the Maastricht Treaty and the common constitution. The EU does not seem prepared to give the environment to private bodies, as it did with accounting and the IFRS. Unlike accounting, the process is simple, has minimal political costs, and came 75 years after the successful U.S. experiment with formalizing and unifying accounting rules.

In the case of ESG rules, the stakes are hundred fold bigger. Political consensus and democratic processes cannot be blocked out of rulemaking on climate and societal issues,

when an external set of rules are "imported." By design, political decisions must be feasible. Basic democratic principles must be respected and valued. This does or should not include the reinterpretation of scientific facts or labelling activities per se as "green" and "sustainable" (as in the EU Taxonomy), or, because an external framework is imported without democratic due process as in the ISSB/ESRS. Political wrangling is expected between MS – which could eventually lead the ISSB/ESRS to failure, like the EU Taxonomy.

### 6.2. EU Climate Leadership and Steps Ahead

Businesses are the focus of policy. Without them, climate goals cannot be achieved. So far, the multiplicity of standard setters, national rules, and resistance from interested parties (which results in processes being delayed) provide patterns of justification for waiting and delaying management decisions. More and more companies will begin to write their own stories and develop their own metrics to communicate in anticipation of regulation and because of intense reputational pressure. Diversification and confusion mixed with dissatisfaction over not meeting agreed upon and necessary climate goals shall lead to the deleveraging of this information. Standardization and alignment with market movements would be essential for regulatory purposes and the sustainability of financial accounting. Without qualitative and quantitative KPIs integrated into financial reporting, the chaos of current reporting cannot be broken through. A stringent climate policy is impossible.

Why not simplify the process even more? Why not focus on the simplest common denominator that is acceptable to all? Accounting for carbon emissions seems to be one such simple benchmark, that is acceptable by many parties. For a system to work, it has to be simple, understandable, and has to be verifiable, just like accounting that simply measures monetary values, a balance sheet, and an income statement. The same parallel for a successful ESG verification system is to measure carbon emissions. The process and frameworks are (relatively) simple, the measurement is precise, and can be easily verified, e.g. using the GHG-protocol or a TCFD climate scenario analysis. Carbon accounting is simple, feasible, and can be easily audited.

We already have an "assurance" industry that can easily oversee net-zero targets? Carbon accounting can be a simple start, rather than waiting many years to promulgate formal and comprehensive ESG standards. Accounting for carbon emissions is a simple way everyone can be on the same page, voters to politicians, firms and investors. History provides us with rich similarities: the shenanigans, profiteering, and speculative activity of the 1920s led to 10 years of economic misery known as the great depression. The SEC was established in 1934 leading to the creation of formal accounting and auditing, where financial numbers are checked by external bodies and verified independently. Hefty penalties are given to those who do not comply with accounting rules. We have millions of accountants all over the world to check other people's numbers. Humans cannot be trusted to regulate themselves it seems, not when big dollars are involved. We need a parallel system for a sustainable world: we need independent oversight for climate goals. To mitigate and limit the most severe and far-reaching impacts of climate change, a global reduction of greenhouse gas levels is essential, as the next decade is crucial in view of the otherwise looming scenarios of global warming above 2 degrees. Already with the ideal Paris target of limiting global warming to 1.5 degrees, measures must be taken to make habitats resilient and avoid severe cuts in value chains. The easiest and fastest way to

stop the environmental calamity is to start by accounting for carbon emissions. Emission accounting has the opportunity to become the missing tool in the declared strategy to align capital with climate targets that the EU badly needs. This simple carbon emission verification mechanism can easily expand to cover all other ESG matters, in due time. Time to start simple, otherwise lobbying and horse-trading will delay yet again and again. The EU has already had multiple false starts.

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